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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KANG, INSUN

ART UNIT	PAPER NUMBER
2193	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,108	CIVLIN, JAN	
	Examiner	Art Unit	
	Insun Kang	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/12/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-7,9-12,14-16 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7,9-12,14-16 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 3/12/2007.

2. As per applicant's request, claims 4, 8, 13, and 17 have been cancelled and claims 1, 6, 10, and 15 have been amended. Claims 1-3, 5-7, 9-12, 14-16, and 18 are pending in the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-7, 9-12, 14-16, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lethin et al. (US 6,463,582) hereafter Lethin.

Per claim 1:

Lethin discloses:

-identifying binary code for a program that has already been compiled ; obtaining a portion of the binary code; executing the portion of the binary code while optimizing the portion of the binary code,(i.e. This logging of information identifies some of the instructions and some of the join points…the system is designed to allow optimized code to be replaces as more information becomes available…The dynamic compilation chooses which portions of the text to optimize based on profiling information gathered by the interpreter," col. 5 lines 10-28) the executing

identifying dynamic changes in flow defined by a jump instruction to enable additional portions of the binary code to be obtained and executed (i.e. see table 4 and 5 which shows a jump (unconditional branch); When the number of times some branch is executed exceeds a threshold number, the destination of that branch becomes a seed for compilation," col. 5 lines 21-43); and saving the executed and optimized portion of the binary code and any additional portions of the binary code to an optimized binary code file for the program (i.e. Branch logger 112 then uses a seed selection method to determine which seeds to send to compiler 104. Block picker 114 then uses the seed and branch profile information to choose a segment of the original code to compile," col. 6 lines 1-17; "Optimizing code generation unit 118 performs the actual compilation of original instructions into translated code segment instructions…along with information about the segment being compiled is finally passed to segment installation unit…which makes the code available to the interpreter," col. 6 lines 10-16).

Per claim 2:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

continuing obtaining and executing portions of the binary code until all portions of the binary code have been saved to the optimized binary code file for the program (i.e. fig 27).

Per claim 3:

The rejection of claim 2 is incorporated, and further, Lethin teaches:

executing the optimized binary code file for the program; detecting a missing additional portion associated with a dynamic change in flow detected during execution of a portion of the

optimized binary code file for the program; obtaining the missing additional portion from the binary code for the program; executing the missing additional portion; and saving the executed missing additional portion to the optimized binary code file for the program (i.e. fig 27; col. 5 lines 21-43; col. 6 lines 1-17).

Per claim 5:

The rejection of claim 1 is incorporated, and further, Lethin teaches:

wherein the optimizing is configured to optimize the portion of the binary code for a new hardware architecture (i.e. col. 5 lines 54-64).

Per claims 6,7, and 9, they are another method versions of claims 1-3, and 5, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-3, and 5 above.

Per claims 10-12, and 14, they are the media versions of claims 1-3, and 5, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-3, and 5 above.

Per claims 15, 16, and 18, they are the media versions of claims 6,7, and 9, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 6,7, and 9 above.

Response to Arguments

5. Applicant's arguments filed 3/12/2007 have been fully considered but they are not persuasive.

The Applicant states that: Lethin does not disclose identifying dynamic changes in flow defined by a jump instruction.

In response to the statement above, the claims do not recite the specific jump opcode. A jump instruction functions as an unconditional branch. Lethin discloses such a jump instruction that jumps to a destination (i.e. unconditional branch in tables 4-6).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-R 6:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG AI AN can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER